

Winifred Mary Curtis 1905-2005

Gintaras Kantvilas

Tasmanian Herbarium, Private Bag 4, Hobart, Tasmania, Australia 7001.



Winifred Mary Curtis was born June 15th, 1905, in London, England, the only child of Herbert John and Elizabeth Mary Curtis. Her parents were the sort who believed that girls should have the same educational advantages as boys, something unusual for those early years of the twentieth century. They gave her every opportunity to study as she wished, for which she always paid them tribute.

The First World War had a great influence on her life in that it was her generation that was literally culled of men. In later life, when asked why she had remained unmarried, she simply remarked “there weren’t the men - they were all killed in the war”. The war had other impacts as well, in that it altered opportunities for women to obtain employment in traditionally male domains such as industry, education and the civil service.

The Curtis family moved frequently and, in 1920, Herbert Curtis was stationed in India. Winifred spent two years at a boarding school at Naini Tal in the eastern Himalayas. It was a very cosmopolitan school, established primarily for the daughters of American missionaries. She returned to London in 1922 to complete her matriculation and, in 1924, enrolled at University College London to study botany, chemistry, mathematics and physics. Botany became her central interest more by virtue of her doing well at it rather than through any specific love for the topic. It brought her several awards that contributed to paying for text books and fees. Winifred graduated from University College London with a BSc (Hons) degree in 1928. She subsequently gained a MSc (1939), PhD (1950) and DSc (1968) from the same institution. She learnt

her Botany from a number of distinguished individuals who were pioneers in their fields: palaeobotanist Francis Oliver, ecologists Sir Arthur Tansley and Edward Salisbury, phycologist Felix Fritsch and mycologist Dame Helen Gwynne-Vaughan. It was this illustrious scientific tradition that Winifred later imported into Tasmania when she arrived with her parents in 1939.

Her first research work, undertaken for Honours under the supervision of Professor Oliver, was on the origin and status of the grass then known as *Spartina townsendii*. Later work concentrated on apomicts in *Taraxacum*. However, academic employment was difficult to obtain in the United Kingdom, and she supported herself during these early years by teaching science at various girls' High Schools.

The decision to come to Tasmania was rather fortuitous. Her father had planned to retire to one of the British dominions where the climate was milder. The family's preferences were for Tasmania, New Zealand or Vancouver. Winifred wrote to all the relevant universities, and the most promising response came from Tasmania, from Dr V.V. Hickman, Head of the Biology Department at the University of Tasmania. He offered her a part-time position as a Demonstrator, only the second academic appointment to be held by a woman at the University. Much as she had done in England, she also obtained a part-time job as Science Mistress at Hobart's Fahan School. The Second World War now played a hand in her life for, in 1943, the Australian Government decided it needed more doctors, and medical students were required to study Botany in the early part of their training. Winifred was offered a full-time position at the University because, with a brand new Botany Department only recently established, there was nobody available to teach at University level other than this young, newly-arrived Englishwoman.



Figure 1. In the field at The Springs, Mt Wellington, Tasmania in 1941.

From 1942 to 1966, she worked at the University of Tasmania, becoming Assistant Lecturer in 1942, Lecturer in 1945, Senior Lecturer in 1951 and Reader in 1956, the first woman at the University to attain this rank. Perhaps more significantly, she was also the first woman at the University of Tasmania to head an academic department, serving as Acting Head of Botany in 1947, 1954, 1961, 1964 and, in her final year of employment, in 1966. Winifred Curtis enjoyed a reputation for being an exacting and formidable teacher, but she had great fondness for her students and earned their long-lasting respect in return. She continued to receive letters and visits from many former students throughout her life.

Winifred Curtis was a pioneer researcher in plant embryology and cytology, being the first to apply these disciplines to Australian plant species. Her chief contributions, however, were to plant taxonomy. In 1943, in response to a need for a new flora of Tasmania to update Leonard Rodway's 1903 publication, she commenced work on *The Student's Flora of Tasmania*. It became the definitive handbook on Tasmania's flowering plants and conifers. The first volume was published in 1956, the fifth (and final) volume in 1994. From the 1970s, she co-operated closely with her close friend, the late Dr Dennis Morris, who co-authored the final volumes and who predeceased her by just a few months.

Curtis's contributions to Tasmania and Tasmanian Botany are enormous. She taught generations of students, and today her legacy lives on through cohorts of professional and amateur biologists who were taught either directly by her, or by her students such as the late Professor Bill Jackson. Her *Student's Flora* remains the fundamental text for all students and lovers of Tasmanian plants. Her six-volume *Endemic Flora of Tasmania* (1967-1978), produced jointly with renowned botanical artist Margaret Stones and sponsored by the late Lord Talbot de Malahide, is not only a scholarly work but also a masterpiece of botanical art and a much-sought collector's item. Her *Biology for Australian Students*, a high school text first published in 1948, served generations of school biology classes. This was a book that she had written out of frustration at having to teach from English-based texts; ironically she never taught from it herself.

Winifred Curtis worked tirelessly towards the security of Tasmania's botanical collections and the establishment of the Tasmanian Herbarium at the Tasmanian Museum and Art Gallery. In 1941, she had been part-time Keeper, working on Saturday afternoons at the Royal Tasmanian Botanical Gardens in a small wooden hut where the Herbarium collections were housed. When the collections were lent to the University to facilitate her preparation of the *Student's Flora*, she maintained responsibility for them, adding more than 6,000 specimens herself. These she collected on excursions in the family car, using buses or walking. In retirement, she continued to work at the Herbarium as an Honorary Botanist for more than 35 years.

Curtis gained many honours and much recognition for her contributions to Tasmania, including the Royal Society of Tasmania's Clive Lord Memorial Medal (1966), the Australian Natural History Medallion (1976), membership of the Order of Australia (1977), an honorary DSc from the University of Tasmania (1987), the Australian Plants Award (1988), the ANZAAS Mueller Medal (1994), and Hobart Citizen of the Year (1997). In 1991, the Royal Society of Tasmania published a commemorative volume to mark her 85th birthday; it featured more than 30 papers by colleagues, friends and former students. In memory of her contribution to the teaching of botany, the University of Tasmania's School of Plant Science established the *Winifred Curtis Prize* in 1990, awarded to the student who demonstrated the greatest proficiency in first year Plant Science courses. A teaching laboratory at the School has been named the *Curtis Laboratory* in her honour. Her name is also commemorated by

several Tasmanian vascular plants, and in the *Winifred Curtis Scamander Reserve* on Tasmania's East Coast. Her contributions were not only to botany but also to teaching in general and to the advancement of women in education. She remained deeply aware of the privileges of the educational opportunities she received, being of only the third generation of women to have access to higher education. In turn, she tried to pass on this awareness to others, and strived for fairness and equal opportunity.



Figures 2-3: **Fig. 2.** With artist Margaret Stones (left) at the Hartz Mountains, Tasmania, in the 1980s. **Fig. 3.** With friend and colleague Dennis Morris at the launch of the fifth and final volume of their *Student's Flora* in 1994. Photograph courtesy of *The Mercury*, Hobart.

The passing of Winifred Curtis, on October 14th, 2005, marks the closing of a chapter in the annals of Tasmanian Botany. She outlived her peers and most of her students, and the challenge for the younger generation is to carry her work and principles forward. Winifred embodied the principle of sticking to a task to the end; in the case of the *Student's Flora* it took her more than 50 years, something she did not realise when taking it on in 1943. She had an unwavering belief in what needed to be done, even in the face of adversity, or as was more likely the case, in the face of disinterest or mediocrity; she was always prepared to tackle the highest authority on matters of principle. She will also be remembered for her humility, for the way she conducted her research without fanfare but with a dedication to precision. In her view, her considerable achievements were simply a job that needed to be done, and a foundation for others to build on.

This article is based on two earlier contributions on the life of Winifred Curtis:

Kantvilas, G. (1991). 'Winifred Mary Curtis: a biographical sketch', in M.R. Banks, S.J. Smith, A.E. Orchard and G. Kantvilas (eds), *Aspects of Tasmanian Botany - A Tribute to Winifred Curtis*, pp 1-6. Royal Society of Tasmania: Hobart.

Kantvilas, G. (2005). Winifred Mary Curtis: one hundred years of botanical research, teaching and travelling. *Encryphia* 16 (6), 3-5.

Publications of Winifred Curtis

Books

- Curtis, W.M. (1948). *Biology for Australian Students*. Oxford University Press: Melbourne.
- Curtis, W.M. (1952). *Biology for Australian Students*. Second edition. Oxford University Press: Melbourne.
- Curtis, W.M. (1956). *The Student's Flora of Tasmania, Part 1. Gymnospermae. Angiospermae: Ranunculaceae to Myrtaceae*. Government Printer: Hobart.
- Curtis, W.M. (1959). *Biology for Australian Students*. Third edition. Oxford University Press: Melbourne.
- Curtis, W.M. (1962). *Biology for Australian Students*. Fourth edition. Oxford University Press: Melbourne.
- Curtis, W.M. (1963). *The Student's Flora of Tasmania, Part 2. Angiospermae: Lythraceae to Epacridaceae*. Government Printer: Hobart.
- Curtis, W.M. (1965). *Forests and Flowers of Mount Wellington Tasmania*. Tasmanian Museum and Art Gallery: Hobart.
- Curtis, W.M. (1967). *The Student's Flora of Tasmania, Part 3. Angiospermae: Plumbaginaceae to Salicaceae*. Government Printer: Hobart.
- Curtis, W.M. (1967). *The Endemic Flora of Tasmania. Part 1*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1969). *The Endemic Flora of Tasmania. Part 2*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1972). *The Endemic Flora of Tasmania. Part 3*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1973). *The Endemic Flora of Tasmania. Part 4*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1975). *The Endemic Flora of Tasmania. Part 5*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1978). *The Endemic Flora of Tasmania. Part 6*. Text (paintings by Margaret Stones). The Ariel Press: London.
- Curtis, W.M. (1980). *The Student's Flora of Tasmania, Part 4A. Angiospermae: Orchidaceae*. Government Printer: Hobart.
- Curtis, W.M. and Morris, D.I. (1975). *The Student's Flora of Tasmania, Part 1*. Second edition. Government Printer: Hobart.
- Curtis, W.M. and Morris, D.I. (1994). *The Student's Flora of Tasmania, Part 4B. Angiospermae: Alismataceae to Burmanniaceae*. St David's Park Publishing: Hobart.

Papers

- Curtis, W.M. (1931). Variation in the flowers of *Lychnis dioica* Unn. *New Phytologist* **30**, 69-72.
- Curtis, W.M. (1937). The floral morphology of *Spartina townsendii*. *New Phytologist* **36**, 26-32.
- Curtis, W.M. (1940). The structure and development of some apomicts of *Taraxacum*. *Bulletin of Miscellaneous Information (Royal Botanic Gardens, Kew)* **1940 (1)**, 1-29.
- Curtis, W.M. (1941). Observations on the stem anatomy of the genus *Richea*. *Papers and Proceedings of the Royal Society of Tasmania* (1940), 33-35.

- Curtis, W.M. (1944). Variations in *Pultenaea juniperina* Labill. *Papers and Proceedings of the Royal Society of Tasmania* (1943), 197-199.
- Curtis, W.M. (1947). *Phyllaelme colensoi* Berggren, an addition to the list of sub-antarctic plants in the Tasmanian flora. *Papers and Proceedings of the Royal Society of Tasmania* (1946), 31-33.
- Curtis, W.M. (1948). Biology in education. *Tasmanian Education* 3(2), 11-14.
- Curtis, W.M. (1952). Variation in certain Tasmanian plants. *New Phytologist* 51, 398-414.
- Curtis, W.M. (1952). 'The Vegetation (of Tasmania)' in *Encyclopaedia Britannica*. Volume 21. Fourteenth edition (reprinted till 1969).
- Curtis, W.M. (1953). A census of the orchids of Tasmania. *Papers and Proceedings of the Royal Society of Tasmania* (1952): 137-140.
- Curtis, W.M. (1955). Recent records of Tasmanian flowering plants. *Tasmanian Naturalist* 2(3), 12-15.
- Curtis, W.M. (1956). Australian flowering plants. *Australian Museum Magazine* 12(4), 109-114.
- Curtis, W.M. (1962). The Tasmanian Blue Gum (Floral Emblem for the State of Tasmania). *Tasmanian Government Gazette* 13, 700.
- Curtis, W.M. (1963). The vegetation of Tasmania. *The Brief Case* 29.
- Curtis, W.M. (1963). [Review of] Schweinfurth, Ulrich, *Studien zur Pflanzengeographie von Tasmanien* (Bonner Geogr. Abhandlungen 31). *Journal of Ecology* 51, 808-809.
- Curtis, W.M. (1964). 'The vegetation of Tasmania', in *Waleh's Tasmanian Almanac*, pp 23-25.
- Curtis, W.M. (1968). New combination in *Celmisia*. *Taxon* 18, 244.
- Curtis, W.M. (1969). The vegetation of Tasmania. *Tasmanian Year Book* 3, 55-59.
- Curtis, W.M. (1969). New name in *Epacris*. *Taxon* 18, 244.
- Curtis, W.M. (1970). Changes in nomenclature of two endemic Tasmanian plants. *Victorian Naturalist* 87, 251.
- Curtis, W.M. (1972). Hooker, Sir Joseph Dalton (1817-1911). *Australian Dictionary of Biography* 4, 416-417.
- Curtis, W.M. (1972). A new Tasmanian species of *Milligania* (family Liliaceae). *Records of the Queen Victoria Museum* 45.
- Curtis, W.M. (1984). New species of Tasmanian Monocotyledones in the families Juncaceae, Centrolepidaceae and Cyperaceae. *Brunonia* 7, 297-304.
- Curtis, W.M. and Somerville, J. (1948). Boomer Marsh- a preliminary botanical and historical survey. *Papers and Proceedings of the Royal Society of Tasmania* (1947), 151-157.
- Curtis, W.M. and Somerville, J. (1949). The Vegetation (of Tasmania). *Handbook of Tasmania*, ANZAAS, Hobart 1949, 51-57.
- Morris, D.I. and Curtis, W.M. (1974). Recent additions to the Tasmanian flora and some notes on nomenclature. *Records of the Queen Victoria Museum* 50, 1-5.

Acknowledgements

I thank Jean Jarman for preparing the plates for publication. I also acknowledge with thanks unpublished notes on Winifred Curtis's University career compiled by Patrick Dalton.